DE ANZA COLLEGE – ADVANCED TECHNOLOGY CENTER
Business and Computer Systems Division
CAD and Digital Imaging
Course Outline

Degree Applicable

CAD and Digital Imaging 71 Effective Quarter Fall 2005

I. Catalog Description

CDI 71 A - L Pro/ENGINEER Wildfire 2.0 (Intermediate) 4 Units

CDI 71A Pro/ENGINEER Wildfire 2.0 (Intermediate)	CDI 71G
CDI 71B	CDI 71H
CDI 71C	CDI 71I
CDI 71D	CDI 71J
CDI 71E	CDI 71K
CDI 71F	CDI 71L

Prerequisites: CDI 70.

Eight hours lecture-laboratory

Assembly creation and drawing output using Pro/ENGINEER

II. Course Objectives

The student will:

A. Create Assemblies of 3D components using constraints
B. Create Exploded Assemblies
C. Use and alter drawing formats and title blocks
D. Generate 2D details from 3D solid models
E. Establish a variety of view types including section and auxiliary views on a drawing
F. Create Assembly drawings and produce BOM and title block tables
G. Produce drawings with exploded views

III. Essential Student Materials

None

IV. Essential College Facilities

None

V. Expanded Description: Content and Form

A. Assembly Constraints
1. Assemble components to form an assembly
2. Create a subassembly
3. Understand and use a variety of assembly constraints

B. Exploded Assemblies
1. Create exploded views
2. Edit exploded views
3. Create unique component visibility settings
4. Move and rotate components in an assembly

C. Formats, Title Blocks and Views
1. Create drawings with views
2. Create and save title blocks and sheet formats
3. Change the scale of a view
4. Display appropriate views for detailing a project

D. Detailing
1. Use ASME standards to detail drawings
2. Dimension a part.
3. Create and save configuration files
4. Add geometric tolerancing information to a drawing

E. Sections and Auxiliary Views
1. Identify the need for sectional views to clarify interior features of a part.
2. Establish configuration files to use when detailing and creating section drawings.
3. Identify cutting planes and the resulting views.
4. Create sections along datum planes.

F. Assembly Drawings and BOM
1. Create an assembly drawing.
2. Generate a parts list from a bill of materials (BOM).
3. Balloon an assembly drawing.
4. Create a section assembly view and change component visibility.
5. Create a table to generate a parts list automatically

G. Exploded Assembly Drawings
1. Create drawings with exploded views.
2. Use multiple sheets.
3. Make assembly drawing sheets with multiple models.
4. Create balloons on exploded assemblies.

VII. Assignments
A. Lab projects.
B. Worksheets.
C. Reading from textbooks and references.

VIII. Methods of Evaluating Objectives
A. Completion of lab projects.
B. Comprehensive design projects.
C. Comprehensive final exam

IX. Texts and References
A. Text:
1. Lamit, Louis Gary. Pro/ENGINEER Wildfire, ITP